



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,396	09/30/2003	Ajay Kwatra	16356.823 (DC-05254)	6485
27683	7590	09/28/2006	EXAMINER	
HAYNES AND BOONE, LLP 901 MAIN STREET, SUITE 3100 DALLAS, TX 75202			DALEY, CHRISTOPHER ANTHONY	
			ART UNIT	PAPER NUMBER
			2111	

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/675,396	Applicant(s) KWATRA, AJAY	
	Examiner Christopher A. Daley	Art Unit 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6-11,14 and 16-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,6-11,14,16-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4,6-11,14,16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sleeman (US20040260843) in view of Saunders (Newcard Exposed), and in further view of Severson et al (US6191499) hereinafter Severson.
2. As to claim 1, Sleeman discloses a Newcard device to electrically couple a first and second subsystem of a computer, the computer being partitioned into the first and second subsystems based on at least one predefined criteria, the Newcard device comprising:
 - a first port electrically coupled to the first subsystem by a first connector (Figure 2 illustrates a first port 68 comprising a first connector, page 4, paragraph 0033);
 - a second port electrically coupled to the second subsystem by a second connector, wherein the second port includes at least one high speed serial communications bus (Figure 2 illustrates a second port 26 comprising bus to electrically couple said port to the host bus port, page 3, paragraph 0028); and
 - a communication component electrically coupled to the first and second ports, wherein the communication component is operable to control signals transferred between the

Art Unit: 2111

first and second connectors (Figure 2 illustrates a communication component, OFC that couples and controls said ports, page 3, paragraph 0028);
a user console (Figure 2 illustrates a system comprising a computer 4, comprising a monitor that serves as a console for said system, that monitors the power of said computer system via Newcard 23, comprising the card information structure (CIS), paragraph 0004);

Sleeman does not explicitly teach the second subsystem having a power control providing a status signal to the first subsystem via the Newcard device.

However, Saunders discloses the second subsystem having a power control providing a status signal to the first subsystem via the Newcard device (System diagram on sheet 16 of Saunders illustrates a Power switch (slot A) that provides a status signal PEST# to the first slot. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the NEWCARD of Saunders in the system of Sleeman to support both PCIE and USB bus protocols, sheets 16 and 17. The modification would have been obvious because one of ordinary skill in the art would want to use a computer system that conforms to the Newcard standard with both bus standards of PCIE and USB, sheets 16, and 17.

Sleeman as modified by Saunders does not explicitly disclose a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device.

However, Severson teaches a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device. Figure 3 illustrates a card within host system comprising an external power source 340 coupled to a system power supply 330 that is coupled to all the subsystems therein via voltage regulator modules VRMs). These VRMs provide local regulated power and redundant power to each subsystem. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the power system of Severson to power the system of Sleeman modified by Saunders as the multi-purpose nature of the board requires the support of a plurality of supply sources redundancy and regulation, COL. 2, lines 2 - 29: One of ordinary skill in the art would be motivated to use the power system of Severson to power the system of Sleeman modified by Saunders as the multi-purpose nature of the board requires the support of a plurality of sources with redundancy and regulation, COL. 2, lines 2-29.

3. As to claims 4 and 14, SAUNDERS discloses the device and method, wherein the first connector includes 28 pins (on its pin out page of 28 pins, with 26 pins are used per slot, and 2 reserved pins to comprise 28 pins).

As to claims 6 and 16, SAUNDERS discloses the device and method, wherein the first and second subsystems are coupled by two Newcard devices connected in parallel, wherein the two Newcard devices are substantially identical (in its starting concepts of a system, sheet 9 illustrates how two Newcards would occupy slots A and B of said system).

4. As to claims 7 and 17, Sleeman discloses the device and method, wherein the second subsystem is defined to include components operable to interact with a user (Figure 2 illustrates the connection of a PC and a modem, page 4, paragraph 0033).

5. As to claims 8 and 18, SAUNDERS discloses the device and method, wherein a first predefined criteria is heat generation and a second predefined criteria is noise generation (on its power management page, sheet 19, the need to manage power dissipation within the card is emphasized, as there are thermal constraints due to size of the NEWCARD. The Newcard thermal limit of 4W is illustrated. Card current limits are specified to manage the heat generation. Advanced power management schemes such as Secondly, wake states for the various buses to reduce to need for cooling fans that would contribute to the system noise generation, as is well known in the art).

6. As to claim 11, Sleeman discloses a method for partitioning a computer into subsystems, the method comprising: preparing a first subsystem, wherein the first subsystem is defined to include certain selectable components of the computer having

Art Unit: 2111

at least one common property (First subsystem comprises all I/O components connected to I/O port 38 of figure 2, page 3, paragraph 0028);

preparing a second subsystem, wherein the second subsystem is defined to include remaining components of the computer (second subsystem comprises components on host side of the computer as illustrated in Figure 2, page 3, paragraph 0028); and

a first port electrically coupled to the first subsystem by a first connector (Figure 2 illustrates a first port 68 comprising a first connector, page 4, paragraph 0033);

a second port electrically coupled to the second subsystem by a second connector, wherein the second port includes at least one high speed serial communications bus (Figure 2 illustrates a second port 26 comprising bus to electrically couple said port to the host bus port, page 3, paragraph 0028); and

a communication component electrically coupled to the first and second ports, wherein the communication component is operable to control signals transferred between the first and second connectors (Figure 2 illustrates a communication component, OFC that couples and controls said ports, page 3, paragraph 0028);

a user console (Figure 2 illustrates a system comprising a computer 4, comprising a monitor that serves as a console for said system, that monitors the power of said computer system via Newcard 23, comprising the card information structure (CIS), paragraph 0004);

Sleeman does not explicitly teach the second subsystem having a power control providing a status signal to the first subsystem via the Newcard device.

However, Saunders discloses the second subsystem having a power control providing a status signal to the first subsystem via the Newcard device (System diagram on sheet 16 of Saunders illustrates a Power switch (slot A) that provides a status signal PEST# to the first slot. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the NEWCARD of Saunders in the system of Sleeman to support both PCIE and USB bus protocols, sheets 16 and 17. The modification would have been obvious because one of ordinary skill in the art would want to use a computer system that conforms to the Newcard standard with both bus standards of PCIE and USB, sheets 16, and 17.

Sleeman as modified by Saunders does not explicitly disclose a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device.

However, Severson teaches a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device. Figure 3 illustrates a card within host system comprising an external power source 340 coupled to a system power supply 330 that is coupled to all the subsystems therein via voltage regulator modules VRMs). These VRMs provide local regulated power and redundant power to each subsystem.

Art Unit: 2111

7. As to claim 21, Sleeman discloses an information handling system comprising: a first subsystem including a processor, and a memory coupled to the processor a second subsystem including at least one expansion card; (a first subsystem called the host processor. It would have been inherent for said host processor to comprise a processor and a memory, as this is the definition of a host chip set); and a Newcard device electrically coupled to the first and second subsystems, wherein the Newcard device includes: a first port electrically coupled to the first subsystem by a first connector (Figure 2, NEWCARD,23, page 1, paragraph 0003); a second port electrically coupled to the second subsystem by a second connector, wherein the second port includes at least one high speed serial communications bus (Figure 2 illustrates a second port 26 comprising bus to electrically couple said port to the host bus port, page 3, paragraph 0028); and a communication component electrically coupled to the first and second ports, wherein the communication component is operable to control signals transferred between the first and second connectors (Figure 2 illustrates a communication component, OFC that couples and controls said ports, page 3, paragraph 0028); a user console (Figure 2 illustrates a system comprising a computer 4, comprising a monitor that serves as a console for said system, that monitors the power of said computer system via Newcard 23, comprising the card information structure (CIS), paragraph 0004);

Sleeman does not explicitly teach the second subsystem having a power control providing a status signal to the first subsystem via the Newcard device.

However, Saunders discloses the second subsystem having a power control providing a status signal to the first subsystem via the Newcard device (System diagram on sheet 16 of Saunders illustrates a Power switch (slot A) that provides a status signal PEST# to the first slot. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the NEWCARD of Saunders in the system of Sleeman to support both PCIE and USB bus protocols, sheets 16 and 17. The modification would have been obvious because one of ordinary skill in the art would want to use a computer system that conforms to the Newcard standard with both bus standards of PCIE and USB, sheets 16, and 17.

Sleeman as modified by Saunders does not explicitly disclose a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device.

However, Severson teaches a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device. Figure 3 illustrates a card within host system comprising an external power source 340 coupled to a system power supply 330 that is coupled to all the subsystems therein via voltage regulator modules VRMs). These VRMs provide local regulated power and redundant power to each subsystem.

8. As to claim 22, SAUNDERS discloses the system, wherein the at least one expansion card is operable to receive data from the processor via the at least one high speed serial communications bus (system diagram on sheet 15 illustrates a high speed communication bus SMBus).

Claim Rejections - 35 USC § 103

Claims 9 – 10, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sleeman as applied to claim Saunders above, and further in view of Cheng et al (US6935130) hereinafter Cheng.

9. As to claims 9 and 19, Sleeman as modified by Saunders does not disclose the device and method, wherein the first subsystem is placed at a sufficient distance away from a user to substantially reduce effects of the heat generation and the noise generation.

However, Cheng teaches the device and method, wherein the first subsystem is placed at a sufficient distance away from a user to substantially reduce effects of the heat generation and the noise generation. Cheng teaches of placing a CPU fan strategically, which would include noise and heat consideration, near the vent holes to monitor the temperature of the CPU to drive the CPU and auxiliary fans in cooling the computer system, COL. 3, lines 12 – 42. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the cooling system of Cheng to manage the heat dissipation of Sleeman/Saunders as power dissipation of the cooling system can be finely controlled, COL. 2, lines 35 – 47. One of ordinary skill in the art would have been

Art Unit: 2111

motivated to see the cooling system of Cheng to manage the heat dissipation of Sleeman/Saunders as power dissipation of the cooling system can be finely controlled, COL. 2, lines 35 – 47.

10. As to claims 10 and 20, Cheng discloses the device and method, wherein the first subsystem includes a processor and a fan assembly included in the computer, wherein an operation of the processor and the fan assembly causes the heat generation and the noise generation (Figure 2 illustrates said elements with a cooling mechanism, resulting in noise and heat generation, COL. 3, lines 20 - 40).

Response to Arguments

11. The applicant amended the independent claims with the following limitation:
a power adapter connected to provide power to the second subsystem including the user console, whereby the optional power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline of the newcard device.

The examiner found prior art in the invention of Severson that address said limitation, namely: Severson teaches a power adapter connected to provide power to the second subsystem including the user console, whereby the power adapter is operable to receive an AC power input to be converted to various voltages as required by the user console, and the second subsystem deriving power from the computer via a powerline

of the newcard device. Figure 3 illustrates a card within host system comprising an external power source 340 coupled to a system power supply 330 that is coupled to all the subsystems therein via voltage regulator modules VRMs). These VRMs provide local regulated power and redundant power to each subsystem.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Daley whose telephone number is 571 272 3625. The examiner can normally be reached on 9 am. - 4p m.

Art Unit: 2111

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571 272 3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CAD
9/22/2006



MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100